

TPS92360DCKR

Quality, reliability & packaging data download

Status: ACTIVE

Report date: 08/06/2025



Assembly site: Ext-Mfg

RoHS	Yes
REACH	Yes
Device marking	1IX
Lead finish/Ball material	SN
MSL rating/Peak reflow	Level-1-260C-UNLIM
Rating	Catalog

Material content

Homogeneous Material Level Component Level							
Component	Substance	CAS Number	Amount (mg)	Percentage %	ppm	Percentage %	ppm
Bond Wire							
Copper and Its Alloys	Copper	7440-50-8	0.013624	95.159600	951596	0.200089	2001
Precious Metals	Gold	7440-57-5	0.000106	0.740379	7404	0.001557	16
Precious Metals	Palladium	7440-05-3	0.000587	4.100021	41000	0.008621	86
Sub-total	—	—	0.014317	100	1000000	0.210266	2103
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.080287	79.999801	799998	1.179133	11791
Thermoplastics	Epoxy	85954-11-6	0.020072	20.000199	200002	0.294787	2948
Sub-total	—	—	0.100359	100	1000000	1.473920	14739
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	2.806838	96.787484	967875	41.222567	412226
Copper and Its Alloys	Iron	7439-89-6	0.06815	2.349999	23500	1.000884	10009
Copper and Its Alloys	Phosphorus	7723-14-0	0.002393	0.082517	825	0.035145	351
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.000145	0.005000	50	0.002130	21
Precious Metals	Silver	7440-22-4	0.01885	0.650000	6500	0.276840	2768
Zinc and Its Alloys	Zinc	7440-66-6	0.003625	0.125000	1250	0.053238	532
Sub-total	—	—	2.900001	100	1000000	42.590804	425908
Lead Frame Plating							
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.0725	100.000000	1000000	1.064770	10648
Sub-total	—	—	0.0725	100	1000000	1.064770	10648
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	3.043255	86.850017	868500	44.694700	446947
Other Organic Materials	Carbon Black	1333-86-4	0.005256	0.149999	1500	0.077192	772
Other Organic Materials	Proprietary Non Halide Flame Retardant	Trade Secret	0.01752	0.499995	5000	0.257307	2573
Thermoplastics	Epoxy	85954-11-6	0.438004	12.499989	125000	6.432737	64327
Sub-total	—	—	3.504035	100	1000000	51.461936	514619
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.217772	100.000000	1000000	3.198304	31983
Sub-total	—	—	0.217772	100	1000000	3.198304	31983
Total	—	—	6.808984	—	—	100	1000000

MTBF/FIT estimates

MTBF / FIT		MTBF / FIT supporting data							
MTBF	FIT	Usage temp (°C)	Conf level (%)	Activation energy (eV)	Test temp (°C)	Test duration (hours)	Sample size	Fails	Additional comments
9.99999999×10^9	0.1	55	60	0.7	125	1000	183306	0	—

Qualification summary

Stress	Reference	Min lot qty	SS / lot	Condition	Duration	Result	Notes
HTOL	JESD22-A108	3	77	Life test, 125C	1000 hours	Pass	Or equivalent JEDEC condition
HTSL	JESD22-A103	3	25	High temp storage bake, 150C	1000 hours	Pass	Or equivalent JEDEC condition
AC/UHAST	JESD22-A102/JESD22-A118	3	25	Unbiased HAST 130C / 85% RH	96 hours	Pass	Or equivalent JEDEC condition
THB/HAST	JESD22-A101/JESD22-A110	3	25	HAST 130C/85%RH	96 hours	Pass	Or equivalent JEDEC condition
TC	JESD22-A104	3	25	Temperature cycle -65/150C	500 cycles	Pass	Or equivalent JEDEC condition
SD	J-STD-002	3	22	Per specification	>95% lead coverage	Pass	—
HBM	JS-001	1	3	ESD - HBM	Classification	See data sheet	—
CDM	JS-002	1	3	ESD - CDM	Classification	See data sheet	—
LU	JESD78	1	3	Latch-up	Per JESD78	Pass	As applicable per JESD78
MSL	J-STD-020	—	—	Per J-STD-020	Classification	See data sheet	—

Ongoing reliability monitoring

FAB process reliability data

Fab Process	Reliability Test	Rolling Year (3Q2024 - 2Q2025) Sample Size	Cumulative Sample Size	Disposition
Power BICMOS	Life test 125C, 1000 Hours or Equivalent JEDEC Condition	25457	425518	Pass

Assembly process reliability data

Package Family	Reliability Test	Rolling Year (3Q2024 - 2Q2025) Sample Size	Cumulative Sample Size	Disposition
SOP/SOT	Biased HAST 130C/85%RH, 96 Hours or Equivalent JEDEC Condition	9402	110204	Pass
SOP/SOT	High temp storage bake 150C, 1000 Hours or Equivalent JEDEC Condition	9106	87250	Pass
SOP/SOT	Temperature cycle -65/150C, 500 Hours or Equivalent JEDEC Condition	20226	205842	Pass
SOP/SOT	Unbiased HAST 130C/85% RH, 96 Hours or Equivalent JEDEC Condition	12320	166686	Pass

Additional resources

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[Certifications](#)

[Conflict minerals specialized disclosure report](#)

[Restricted chemical test report](#)

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